



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/217,542	12/21/1998	JAMES MORRISON	8055	8206

7590 11/27/2001

PAUL W MARTIN
NCR CORPORATION
INTELLECTUAL PROP SEC LAW DEPT ECD-2
101 W SCHANTZ AVE
DAYTON, OH 454790001

EXAMINER

LASTRA, DANIEL

ART UNIT

PAPER NUMBER

2162

DATE MAILED: 11/27/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/217,542

Applicant(s)

MORRISON, JAMES

Examiner

DANIEL LASTRA

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claims 1-18 have been examined.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Addy et al (U.S. 6,056,087) in view of Harden et al (U.S. 4,206,450).

As per claims 1 and 14, Addy et al teach:

“generating a payment-tendered control signal when a user of said self-service checkout terminal tenders payment for a number of items for purchase” (see column 8, lines 58-67 – column 9, lines 1-4).

Addy et al teach a system with a processing unit that monitors output signals generated by a scanner, a video system and a light curtain device in order to supervise and provide security monitoring of a given checkout procedure. In addition, if the light curtain device detects that the customer placed an item in the post-scan area but the video system did not detect motion associated with the customer attempting to scan the item, and the scanner did not read a product identification code associated with the item, it can be inferred with a high degree of confidence that the customer was intentionally operating the self-service checkout terminal improperly. Since the customer

Art Unit: 2162

appears to have made no attempt to scan the item prior to placing the item in the post-scan area, an entry is made in a log. A security officer may be paged to audit or otherwise investigate the customer's transaction if the log entry exceeds a threshold value (see column 8, lines 10-45).

Addy et al do not teach that the output signal generated is a walk-away control signal. However, Harden et al teach a system having a floor mat having a pressure responsive switch for sensing the presence of an intruder. The system further includes an alternate intrusion latching circuit means coupled between the floor mat and the tone generating means for generating another intrusion signal (see column 3, lines 9-16). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy et al system would be modified to include a pressure sensitive floor to determine if the user walk away from the checkout area. If this occurs before a payment-tendered is generated, security officers would be paged.

As per claims 2 and 15, Addy et al teach:

"operating a summoning device so as to summon retail personnel in response to generation of said personnel-request control signal" (see column 8, lines 31-45).

As per claims 3 and 16, Addy et al fail to teach, "wherein said step of detecting if said user exits said checkout area of said retail store includes the step of detecting movement of said user on a movement detection floor mat and generating said walk-away control signal if said movement of said user is indicative of an attempt by said user to exit said checkout area of said retail store". However, Harden et al teach a

floor mat having a pressure responsive switch for sensing the presence of an intruder (see column 3, lines 9-16). The floor mat sensor can be coupled to an automatic telephone dialing device. It provides all the desirable auxiliary features for such a system including a convenient system disarming circuit to permit exit from a dwelling in which the system is installed (see column 2, lines 2-8). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy et al system would be modified to include the Harden et al's pressure sensitive floor mat to determine the presence or absence of a client. The signal generated by the pressure floor mat would be use to determine if the user is exiting the checkout area.

As per claim 4, Addy et al teach, "a video system that detects motion associated with the customer moving the unsuccessfully scanned item across the target area of the scanner in a direction which is opposite to the direction that the customer would move the item if the customer was attempting to scan the item. It should be appreciate that such motion is indicative of the customer returning the item to the area proximate the scanner for a subsequent scanning attempt. The video system generates an output signal which is sent to the processing unit once the video system has detected the customer returning the unsuccessfully scanned item to the area proximate the scanner" (see column 11, lines 55-67). Addy et al fail to teach that the customer is returning from the shopping area. However, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that if the Addy et al could determine that the customer is returning to the scan area using a video system, it would

Art Unit: 2162

also determine if the customer is returning from the shopping area and would generate an output signal accordingly.

As per claim 5, Addy et al fail to teach, "wherein said step of detecting if said user exits said checkout area of said retail store so as to return to said shopping area of said retail store includes the step of detecting movement of said user on a movement detection floor mat in a direction toward said shopping area and generating said return-to-shopping control signal in response thereto". However, Harden et al teach a floor mat having a pressure responsive switch for sensing the presence of an intruder (see column 3, lines 9-16). The floor mat sensor can be coupled to an automatic telephone dialing device, and provides all the desirable auxiliary features for such a system including a convenient system disarming circuit to permit exit from a dwelling in which the system is installed (see column 2, lines 2-8). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy et al system would be modified to include the Harden et al's pressure sensitive floor mat to determine the presence of a client. The signal generated by the pressure floor mat would be use to determine if the user is exiting the checkout area.

As per claims 6, 12 and 18, Addy et al teach the generation of a personnel-needed-immediately control signal in response to generation of a control signal and operating a summoning device so as to summon retail personnel in response to generation of said personnel-needed-immediately control signal (see column 8, lines 31-45). However, Addy et al do not teach that the control signal is an existing-store

Art Unit: 2162

control signal. Harden et al teach a floor mat having a pressure responsive switch for sensing the presence of an intruder (see column 3, lines 9-16). The floor mat sensor also can be coupled to an automatic telephone dialing device, and provides all the desirable auxiliary features for such a system including a convenient system disarming circuit to permit exit from a dwelling in which the system is installed (see column 2, lines 2-8). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy et al system would be modified to include the Harden et al's pressure sensitive floor mat to determine the presence or absence of a client. The signal generated by the pressure floor mat would be use to determine if the user is exiting the store.

As per claims 7 and 13, Addy et al teach a system with a processing unit that monitors output signals generated by a scanner, a video system and a light curtain device in order to supervise and provide security monitoring of a given checkout procedure. In addition if the light curtain device detects that the customer placed an item in the post-scan area but the video system did not detect motion associated with the customer attempting to scan the item, and the scanner did not read a product identification code associated with the item, it can be inferred with a high degree of confidence that the customer was intentionally operating the self-service checkout terminal improperly. Since the customer appears to have made no attempt to scan the item prior to placing the item in the post-scan area, an entry is made in a "suspicion log". A security officer may be paged to audit or otherwise investigate the customer's transaction if the log entry exceeds a threshold value (see column 8, lines 10-45).

Addy et al fail to teach that a floor mat is used for detecting the presence of a user. However, Harden et al teach a floor mat having a pressure responsive switch for sensing the presence of an intruder (see column 3, lines 9-16). The floor mat sensor can be coupled to an automatic telephone dialing device, and provides all the desirable auxiliary features for such a system including a convenient system disarming circuit to permit exit from a dwelling in which the system is installed (see column 2, lines 2-8). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy et al system would be modified to include the Harden et al's pressure sensitive floor mat to determine the presence of a client. The signal generated by the pressure floor mat would be use to determine if the user is exiting the retail store and this would be used to summon personnel if necessary.

As per claim 8, Addy et al teach:

"generating a payment-tendered control signal when a user of said self-service checkout terminal tenders payment for a number of items for purchase" (see column 8, lines 58-67 – column 9, lines 1-4);

Addy et al teach a system with a processing unit that monitors output signals generated by a scanner, a video system and a light curtain device in order to supervise and provide security monitoring of a given checkout procedure. Also, Addy et al disclose that if the light curtain device detects that the customer placed an item in the post-scan area but the video system did not detect motion associated with the customer attempting to scan the item, and the scanner did not read a product identification code

Art Unit: 2162

associated with the item, it can be inferred with a high degree of confidence that the customer was intentionally operating the self-service checkout terminal improperly. Since the customer apparently made no attempt to scan the item prior to placing the item in the post-scan area, an entry is made in a "suspicion log". A security officer may be paged to audit or otherwise investigate the customer's transaction if the suspicion log entry exceeds a threshold value (see column 8, lines 10-45).

Addy et al do not disclose detecting movement of the user on a detection floor mat and generating a walk-away control signal. However, Harden et al teach a floor mat having a pressure responsive switch for sensing the presence of an intruder (see column 3, lines 9-16). The floor mat sensor can be coupled to an automatic telephone dialing device, and provides all the desirable auxiliary features for such a system including a convenient system disarming circuit to permit exit from a dwelling in which the system is installed (see column 2, lines 2-8). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy et al system would be modified to include the Harden et al's pressure sensitive floor mat to determine the presence of a client. The signal generated by the pressure floor mat would be use to determine if the user is exiting the checkout area and this would be used to summon personnel if necessary.

As per claim 9, Addy et al teach, "operating a summoning device so as to summon retail personnel in response to generation of said personnel-request control signal" (see column 8, lines 31-45).

Art Unit: 2162

As per claims 10, 11 and 17, Addy et al teach, "a video system that detects motion associated with the customer moving the unsuccessfully scanned item across the target area of the scanner in a direction which is opposite to the direction that the customer would move the item if the customer was attempting to scan the item. It should be appreciate that such motion is indicative of the customer returning the item to the area proximate the scanner for a subsequent scanning attempt. The video system generates an output signal which is sent to the processing unit once the video system has detected the customer returning the unsuccessfully scanned item to the area proximate the scanner" (see column 11, lines 55-67). Addy et al fail to teach that the movement detection device is a floor mat. However, Harden et al teach a floor mat having a pressure responsive switch for sensing the presence of an intruder (see column 3, lines 9-16). The floor mat sensor can be coupled to an automatic telephone dialing device, and provides all the desirable auxiliary features for such a system including a convenient system disarming circuit to permit exit from a dwelling in which the system is installed (see column 2, lines 2-8). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy et al system would be modified to include the Harden et al's pressure sensitive floor mat to determine the presence of a client. The signal generated by the pressure floor mat would be used to determine if the user returns or exits the checkout area, generating an output signal accordingly.

Conclusion

The Applicant argues that a legally proper teaching, suggestion or incentive which supports combining Addy and Harden in a manner which arrives at the invention of claim 1 does not appear to have been identified in the April 20, 2001 Office Action. Applicant questions why one skilled in the art would have been motivated to combine these two references. Moreover, the Applicant argues that such a teaching, suggestion, or incentive does not appear to exist in the prior art, and the teachings of the references are not properly combinable.

The Examiner answers that the rejection follows the *Graham v. Deere* inquiry by determining the scope and content of the prior art, determining the differences between the prior art and the claims at issue and resolving this difference in light of the level of ordinary skill in the art. While the particular data claimed, which is a movement detection floor mat and a walk-away control signal, are not identical to that in the Addy reference, it would have been recognized by those of ordinary skill in the art that these differences do not create a functional distinction between the claimed method and the teaching of the main reference. In other words, those of ordinary skill in the art would have recognized, in light of the applied prior art, that the data used does not alter how the recited steps are performed. In the Addy invention, the method includes the step of generating an item-entered control signal when a product code associated with an item is entered into the terminal. It also includes the method of advancing the item through the light curtain and into the grocery container, and generating a first detection control signal in response thereto. Moreover, the method includes the step of generating an

Art Unit: 2162

invalid-use control signal when the first detection control signal is generated prior to generation of the item-entered control signal. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy et al system would be modified to include a pressure sensitive floor, which would be another sensor, to determine if the user walk away from the checkout area. If this occurs before a payment-tendered is generated, which would be another control signal, an invalid-use control signal would be generated which would summons security officers to investigate the customer's transaction. Since the steps of the method and those of the prior art are effectively the same, there is no patentable distinction.

The Applicant further argues that nowhere in the Addy reference is there any appreciation that its security monitoring system of its retail terminal is inferior in any regard, and may need to be improved upon. According to the Applicant, nothing in the Harden reference nor any other cited reference alone or together suggests the claimed invention as a solution to the problem of a customer walking away from a self-service retail checkout terminal prior to tendering payment for his or her items for purchase. The Applicant also argues that the Office Action does not identify a valid reason why one of ordinary skill in the art would be motivated to combine Addy and Harden so as to arrive at the invention of claims 1, 8 and 14, nor that the cited art provide any legally proper teaching, suggestion or incentive that supports the proposed combination of Addy and Harden.

The Examiner answers that adding a pressure sensitive mat to the Addy invention, as taught by Harden, does not mean that the Addy retail system is inferior

and need to be improved upon. It only means adding another sensor to generate another control signal to improve security. The same way the scanner generates an item-entered control signal and the light curtain generates a detection control signal, the floor sensitive mat would generate a walk-away control signal. This walk-away control signal would be compared with a payment control signal to determine if security personnel should be paged.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL LASTRA whose telephone number is 703-306-5933. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ERIC W STAMBER can be reached on 703-305-8469. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-9051 for regular communications and 703-308-5357 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

D.L.

Daniel Lastra
November 20, 2001



ERIC W. STAMBER
PRIMARY EXAMINER